

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

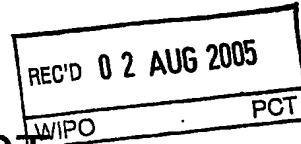
Applicant's or agent's file reference 59731WO003	<b>FOR FURTHER ACTION</b>	See item 4 below
International application No. PCT/US2005/008189	International filing date ( <i>day/month/year</i> ) 11 March 2005 (11.03.2005)	Priority date ( <i>day/month/year</i> ) 07 April 2004 (07.04.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant 3M INNOVATIVE PROPERTIES COMPANY		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 <i>bis</i> .1(a).																
2.	This REPORT consists of a total of 9 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%;"> <tr> <td style="width: 15%;"><input checked="" type="checkbox"/> Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/> Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/> Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/> Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input checked="" type="checkbox"/> Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/> Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/> Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/> Box No. I	Basis of the report	<input type="checkbox"/> Box No. II	Priority	<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/> Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input checked="" type="checkbox"/> Box No. VI	Certain documents cited	<input type="checkbox"/> Box No. VII	Certain defects in the international application	<input type="checkbox"/> Box No. VIII	Certain observations on the international application
<input checked="" type="checkbox"/> Box No. I	Basis of the report																
<input type="checkbox"/> Box No. II	Priority																
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability																
<input type="checkbox"/> Box No. IV	Lack of unity of invention																
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																
<input checked="" type="checkbox"/> Box No. VI	Certain documents cited																
<input type="checkbox"/> Box No. VII	Certain defects in the international application																
<input type="checkbox"/> Box No. VIII	Certain observations on the international application																
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 11 October 2006 (11.10.2006)</p> <p>Authorized officer  <b>Athina Nickitas-Etienne</b></p> <p>e-mail: <a href="mailto:pt04@wipo.int">pt04@wipo.int</a></p>
--	---

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY



PCT

To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/US2005/008189

International filing date (day/month/year)  
11.03.2005

Priority date (day/month/year)  
07.04.2004

International Patent Classification (IPC) or both national classification and IPC  
B60R13/10, G02B5/124, G09F13/04, G09F13/16, G09F13/22

Applicant  
3M INNOVATIVE PROPERTIES COMPANY

### 1. This opinion contains indications relating to the following items:

- ☒ No. I Basis of the opinion
- ☒ No. II Priority
- ☒ No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ No. IV Lack of unity of invention
- ☒ No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ No. VI Certain documents cited
- ☒ No. VII Certain defects in the international application
- ☒ No. VIII Certain observations on the international application

### FOR FURTHER ACTION

... If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized Officer

Adacker, J  
Telephone No. +49 89 2399-7198



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/008189

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2005/008189

---

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	2,4,7,8,10
	No: Claims	1,3,5,6,9
Inventive step (IS)	Yes: Claims	2,10
	No: Claims	1,3-9
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

---

**Box No. VI Certain documents cited**

---

**1. Certain published documents (Rules 43bis.1 and 70.10)**

and /or

**2. Non-written disclosures (Rules 43bis.1 and 70.9)**

**see form 210**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1.) Reference is made to the following documents (D):**

- D1: DE 101 60 376 A (VOLKSWAGENWERK AG) 18 June 2003
- D2: DE 202 18 626 U (FER FAHRZEUGELEKTRIK GMBH) 20 February 2003
- D3: US-A-5 122 902 (BENSON GERALD M) 16 June 1992
- D5: DE 102 47 708 A (FITZKE WERBETECHNIK ; VOLKSWAGENWERK AG (DE))  
14 August 2003

**2.) Independent Claim 1**

**2.1**

Document **D1** (see paragraphs 0009, 0014-0016 and figures 2 and 3) describes a license plate assembly comprising a light source (18) and a license plate (33, 34, 38) suitable for back illumination, said license plate comprising

- a retroreflective sheet (34) having on a base prismatic elements (35, 36) having lateral faces intersecting the base at base edges (see fig. 3), wherein said retroreflective sheet (34) comprises transparent separation surfaces (37) between said prismatic elements (36), said separation surfaces (37) being bounded by the base edges of said prismatic elements (36) (see fig. 3 and paragraph 0015);
- and one or more indicia (see paragraphs 0009 and 0016);

and said retroreflective sheet (34) being arranged on said light source (18) such that said prismatic elements (35, 36) of said retroreflective sheet (34) are facing the light source (18) (see col. 3, line 1-4).

Thus, D1 already discloses a license plate assembly having all features of claim 1.

Hence, the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

## 2.2

Document **D2** (see page 1, last paragraph, to page 6 and the figures) describes a license plate assembly comprising a light source (14) and a license plate (9, 15) suitable for back illumination, said license plate comprising

- a retroreflective sheet (15) having on a base prismatic elements having lateral faces intersecting the base at base edges (see page 2, line 2-5);

- and one or more indicia (20) (see fig. 1);

and said retroreflective sheet (15) being arranged on said light source (14) such that said prismatic elements of said retroreflective sheet (15) are facing the light source (14) (see page 1, last paragraph, to page 2, first paragraph, and page 5, second paragraph).

In this context, it is noted that - contrary to the description given on page 2, third paragraph, of the present application - the retroreflective sheet (15) of D2 is not adhered to the electroluminescent sheet (14), but adhered to a transparent pane (9) (see figures 2 and 3 and corresponding description).

The license plate assembly according to claim 1 differs from this known assembly in that said prismatic elements are truncated having elevated edges and truncated surfaces that are transparent and bounded by the elevated edges of the prismatic elements and/or said retroreflective sheet comprises transparent separation surfaces between said prismatic elements, said separation surfaces being bounded by the base edges of said prismatic elements.

The technical problem to be solved can thus be derived as reducing the retroreflectivity of the license plate assembly.

As also discussed by the applicant on page 2, last paragraph, of the present application, document **D3** refers to this problem of providing a reduced retroreflectivity for a retroreflective sheet and proposes either truncated prismatic elements or separation surfaces between the prismatic elements (see abstract and figures 1 to 3). To solve the problem posed, the skilled person would incorporate the retroreflective sheet of D3 in the assembly of D2, thus arriving at the subject-matter of claim 1 without the exercise of an

inventive step.

3.) Dependent Claims 2 - 9

Claim 2: The subject-matter of this claim appears neither to be known from, nor to be rendered obvious by the cited prior art documents D1 to D3 and D5.

Dependent claims 3 to 9 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and inventive step, the reasons being as follows:

Claims 3 and 4: The assembly of claim 3 is anticipated by D1 (see fig. 3 at 37 and paragraph 0015). Furthermore, the assemblies of claims 3 and 4 are obvious in view of a combination of D2 and D3 (see comments made above under item 2.2; and see abstract of D3).

Claims 5 and 6: These license plate assemblies are anticipated by D1 (see paragraph 0009 and 0016 and figure 2 at 33). Furthermore, the assemblies of claims 5 and 6 are obvious in view of a combination of D2 and D3 (see D2, page 6, third and fourth paragraphs).

Claim 7: This assembly is obvious in view of a combination of D2 and D3 (see D2, fig. 2 and page 5, third paragraph: the retroreflective sheet 15 is adhered (adhesive 16) to the transparent support pane 9 on the side of sheet 15 which is opposite to the side containing the prismatic elements).

Claim 8: Embossing a laminate, which is part of a back-illuminated license plate and contains a retroreflective sheet, in order to obtain indicia of the license plate, is known to the skilled person, as can be seen from D5 (see paragraphs 0021 and 0022 and fig. 2: laminate 2-7 including retroreflective sheet 5 and indicia 8 obtained by embossing the laminate).

Claim 9: This license plate assembly is anticipated by D1 (see col. 3, line 22 and fig. 2: electroluminescent sheet 18). Furthermore, the assembly is obvious in view of a combination of D2 and D3 (see page 5, line 1).

4.) Independent Claim 10

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/008189

The subject-matter of this claim appears neither to be known from, nor to be rendered obvious by the cited prior art documents D1 to D3 and D5.

**Re Item VI**

**Certain documents cited**

Certain published documents:

Application No Patent No	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO2004/048155 (D4)	10.06.2004	23.01.2003	27.11.2002

The application **D4** (see abstract, and description page 7, last paragraph, to page 8, fourth paragraph, and figure 4) shows

a license plate assembly comprising a light source (4-7) and a license plate suitable for back illumination, said license plate comprising

- a retroreflective sheet (10) having on a base prismatic elements (12) having lateral faces intersecting the base at base edges (see fig. 4), wherein said prismatic elements (12) are truncated having elevated edges and truncated surfaces that are transparent and bounded by the elevated edges of the prismatic elements (12) (see fig. 4 and page 7, last paragraph to page 8, first paragraph);
  - and one or more indicia (the provision of indicia is implicitly evident for a skilled person in connection with a vehicle license plate; see claim 1 of D4);
- and said retroreflective sheet (10) being arranged on said light source (4-7) such that said prismatic elements (12) of said retroreflective sheet (10) are facing the light source (4-7) (see fig. 4).

Thus, the application D4 discloses a license plate assembly having all features of claim 1.

Furthermore, application D4 (see abstract, and description page 7, last paragraph, to page 8, fourth paragraph, and figure 4) describes



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2005/008189

a method for making a retroreflective sheet, said method comprising providing a retroreflective sheet (10) having on a base prismatic elements (12) having lateral faces intersecting the base at base edges and intersecting each other at the top of said prismatic elements and deforming by application of heat and/or pressure the top of said prismatic elements (12) so as to form truncated prismatic elements having elevated edges and truncated surfaces that are transparent and bounded by said elevated edges of the truncated prismatic elements (see abstract, and description page 7, last paragraph, to page 8, fourth paragraph, and figure 4).

Thus, the application D4 discloses a method for making a retroreflective sheet having all features of claim 10.

Furthermore, D4 anticipates the assembly of claim 2 (see abstract, and description page 7, last paragraph, to page 8, fourth paragraph, and figure 4), the assemblies of claims 3 and 4 (see page 8, line 1) and the assembly of claim 9 (see page 7, last paragraph and fig. 4: electroluminescent device 4-7).